Safety and Aesthetics in Urban Roadway Design
Interdisciplinary Group Meeting
June 24, 2004, 9:00 a.m. to 12:00 p.m.
WSDOT Lakewood Maintenance Facility - Conference Room

Members in attendance:

Name	Agency	Phone
Dave Olson	WSDOT – HQ Design Office	360-705-7952
Dick Albin	WSDOT – HQ Design Office	360-705-7451
Anna St. Martin	WSDOT – HQ Design Office	360-705-7453
Brian Hasselbach	WSDOT – H & LP	360-705-7344
Rich Meredith	City of Shoreline	206-546-2403
Mike Johnson	City of Seattle	206-684-5187
Shane Dewald	City of Seattle	206-684-5041
Maiya Andrews	City of Des Moines	206-870-6523
Thera Black	TRPC	360-786-5480
Ned Conroy	PSRC	206-587-5620
Rocky Piro	PSRC	206-464-6360
Bruce Smith	WSDOT – HQ Env. Services Office	360-705-7493
Don Peterson	FHWA – Olympia	360-534-9323
Paul Harker	FHWA – Olympia	360-753-9552
Samih Shilbayeh	WSDOT – HQ Design Office	360-705-7264

Welcome and Introduction:
Samih Shilbayeh welcomed everyone to the meeting and requested that the attendees introduce themselves.
After the introduction, Samih talked briefly about agenda items, and about the background of the document and what has been accomplished so far. Samih mentioned that the objective of this meeting is to address any new comments, the format of the document, chapter order revisions, and getting the document ready for statewide review. Dave noted that many of the issues are the same as in the last meeting. Samih also noted that WSDOT would like to get the document published by September so the document can be used for the 1st training session on September 21st at NW Region.

Dave talked briefly about the main highlights of the previous IDG meeting and mentioned that the focus was on the format of the document. He mentioned that the format has changed and Anna will talk about that as well as chapter order. Dave mentioned that since last IDG meeting that there was not much response from the local agencies about comments on the document except from PSRC and there was no comment or feedback on the new format.

Mike requested that there be a discussion of PSRC's comments that Rocky sent by email on June 23rd.
Dave mentioned that Rocky had similar comments a year ago, and opened a discussion about the concerns Rocky raised (see emails attached).

Dave summarized Ricky's concerns as the following
1. Appropriate degree of detail
2. Readability of the document
3. How to make it a truly collaborative tool.
4. How to present the discussion of trade-offs.

The floor was open for degree of detail
Dave mentioned the discussion from a previous IDG meeting (May 22nd, 2003?), where there was a consensus that the detail was appropriate.
General response that the level of detail is appropriate.

Dick noted that WSDOT is pushing hard to get the document completed, and commented on collaborative effort with local agencies, where WSDOT will write the document and lDG members will review and comment, adding and deleting any unnecessary elements. NO intention of this becoming a WSDOT document.
Dave agreed, noting that in the early IDG meetings they agreed that the document development process would entail WSDOT writing the draft, and the IDG reviewing it.

The IDG would like to see more updates of information, and there are some concerns that the document may not address local comments. Mike added that it is not representing local jurisdictions, and that it must stay away from *Design Manual* content.

Discussion on Tone and Tradeoffs:
Mike mentioned that the document is overly defensive of design standards and agrees with Rocky's comments. Needs an urban design perspective and less of motor vehicle perspective. As an example Mike refers to the discussion of the safety aspects of placing objects such as trees, which is worded as a safety hazard. The city would like more. They can be aesthetic and traffic calming elements. The purpose of CSS is to balance elements and tradeoffs. Presenting trees as negative is not going to help; we should try to present tradeoffs in a balanced way. Also, the emphasis is on motorists.
Shane added that portraying street trees as fixed objects puts pressure on jurisdictions who want trees, while the ratio of environmental benefits to installation and maintenance costs of trees is maximum compared to other vegetation. Dick and Anna responded that the language will be softened, while maintaining that trees do have value engineering (VE) tradeoffs.
Dick discussed that street trees cannot be present with out mentioning trade-offs. He mentioned a new study that has been published in California comparing the accident experience along facilities with and without trees in the median. With this type of report in the "Additional Resources" there is a need for reports on studies indicating the value of trees.
Rocky noted the need to present all discussions as neutral, and then present the +/- tradeoffs with out coloring the decision-making process.

Mike mentioned the need to consider what is socially acceptable in communities. Trees mitigate environmental impacts in Seattle, and they are regarded as important. Rocky pointed out that it depends on the context as to whether street trees and fixed object are a problem. Locals don't want to feel like they have to fight to include trees. Attention was drawn to the language on page II-20, about the lack of quantitative evidence of trees buffering pedestrians from vehicular traffic. However, they can't be discounted.

Dave wants people to suggest specific wording changes to address their concerns.

Rich noted that lane widths are discussed in an imbalanced way: narrowing is addressed as decreasing capacity but it can do the opposite if an additional lane is then added.

Mike noted that the definition of shoulder is an urban shoulder and should get away from such definition. Don replied that when you start with a basic definition, and then look at the context you modify the basic description. Similarly, the Design Clear Zone is established in accordance with standards with respect to fixed objects, but when an object is placed within the DCZ, the clear zone is reduced. This still does not affect how the DCZ is established.

Thera noted that the tone seems like bicyclists and pedestrians are add-ons. She added that the focus should be on getting more people from point A to point B, not getting vehicles through town. Anna responded that the comments from PSRC addressed similar issues of tone, and work is in progress to modify it. She would welcome more specific comments to broaden language. One example of a simple and helpful change suggested by PSRC that is being incorporated is the change from using a term such as "vehicles" to "users" throughout the document.

Don noted that there may be different perspectives between those using this document, and that it is important to discuss the different perspectives. Mike noted an example on page IV-33 section IV-6-5, where there is a distinct "roadside safety" perspective that might need to change. Dick responded that because it states distinctly what perspective it is presenting, and presents it as a preferred circumstance, it is making a valid point.

Mike and Rich opened a discussion on Traffic calming, which is now a chapter, not a separate Division. Debate over whether it is appropriate in this document, because the features discussed apply more to residential streets, than to town centers, state routes, or urban environments. Relating to the discussion on the scope of the document (captured below) it was agreed that the traffic calming information was appropriate, with the possible addition of other elements or discussion that relates to a wider variety of contexts.
Rocky noted that often trying to maintain high speed is part of the problem in certain environments, and that is why some of the elements are inappropriate. If the speeds are set to high for the conditions introduced with the traffic-calming features, there is a risk involved. Mike agreed that assuming design speed has to be at or better that what they are now is a problem.

Mike and Shane referred to a Seattle document Making Streets that Work, and suggested removing the table that seems to direct choices because of the check marks and replacing it with a bulleted list (Figure V-1.8 in May 2004 version being reviewed.) They suggested that if the table is retained, street trees and buffers are added as one of the possible physical modifications. Alternately, the grid could be left blank to be filled by the user, so that it is very specifically applicable to the context they are dealing with.

The overall consensus was that there is a need to be specific and not so global in some (much?) of the discussion. With respect to level of detail, the document is not way off the mark except on specific points such as turning radius (WB-67) - where is this used in the urban environment?

Discussion on Document Order:
Anna presented a revised chapter order.
Anna distributed a table of contents handout, mentioned the discussion she and John Milton had with PSRC about it, and requested input.

The major revisions proposed include:
- Including the Legal chapter within the Introduction Division;
- Moving the "Applying the Considerations" Division and Case Studies toward the front;
- Forming a new Division on Facility Users as suggested by PSRC; and
- Expanding the Environmental Considerations chapter to its own Division.

The comments include:
Mike commented that the Environmental Considerations Division shouldn't be at the end. Anna suggested that putting Environmental Consideration before Design Consideration may avoid the implication that the environment is an afterthought. Mike and Rocky agreed with that idea. ?.

Don questioned the placement of the Multi-Modal Safety chapter in the Facility Users Division. Agreed it should move to the Design Division.

Rocky proposed that some of the tone issues are a result of the order of document, with process and design before context. Should flip flop things to talk about the context first.

Rocky suggested the Project Development Approach be the final Division. Mike is okay with having it last but it doesn't need to be. In the Project Development and Planning chapter, the state's approach to project development and funding is described, not the local approach on project development. Can't really cover all of the local approaches. Dave: funding was presented but isn't necessarily required. Don responded that it shouldn't focus on state perspective. Mike suggested that the state approach could be presented in a reference (appendix) if we don't intend to discuss other approaches as well (except to say they may be different). Further discussion lead to the comment that the approach section doesn't appear to just address the WSDOT approach and the question

"Why are the approaches different?" Mike responded that they shouldn't be if we are talking about a CSD approach. Dave requested that the group point out anything in the approach section that should be changed. Mike indicated page IV-33 as an example of how it presents a WSDOT perspective, and Dave said he viewed it is a shared perspective.

Thera thanked the group members for their effort. She talked about chapter III-2 (Project Development and Planning) belonging up front unless III-2 is modified. Rocky suggested putting it in the introduction. Anna responded that some of Division III doesn't belong in the introduction.

General discussion suggests moving the case studies from part of II to appendix; and move much of Division III to the last chapter.

Mike proposed that the Stormwater Management chapter belongs in Environmental Considerations Division. Alternately, he suggested that the Urban Streams chapter (already in the Environmental Division) include a discussion of water quality. Thera noted that the Environmental Division should address more than just the natural Environment, and suggested that the Visual Functions chapter be retained in Design, and Cultural Historic Resources be moved to the Environmental Division. This allows similar material to be covered in both the Design and Environmental Divisions.

The order agreed upon is as follows:
- **Intro,**
- **Contexts,**
- **Users,**
- **Environment,**
- **Design,**
- **Process, and**
- **Case studies appendix.**

Other specific details noted were as follows:
- **The Historic and Cultural Resources chapter should be moved to the Environmental Division, and the Visual Functions chapter maintained in the Design Division.**
- **The Urban Streams chapter in the Design Division should include more of the considerations relating to water quality.**
- **The case studies should be moved to an appendix.**

Discussion on Format:
Anna distributed examples of the new format developed in response to the comments from the last IDG meeting and from Al King on the document looking like a WSDOT design document.

Mike: add sources of photos (include where it was taken).

Suggestion to identify division breaks with some sort of visual "tab" on the edge to indicate where they are located; particularly important for the black and white versions where the colored edges will be indistinguishable.

Shane likes green edge for Environmental Division

Group liked that there are more photos in the new format. Some concern expressed that it will take more space. Anna state that, because the photos are no longer in line with the text, but are along the edge, the length of each chapter will be reduced or remain constant.

Rocky likes the highlighted "key issues" at the beginning.

Group decision is that the new format is appropriate and acceptable.

Discussion on Scope of Document (SRs only? All classifications?)

Dave raised the question about the focus of the document, whether it should focus exclusively on state routes through urban areas, or as now, cover various classes of roads. Rich would prefer it focus on state routes (highways). Principle arterials would make sense. Mike countered that it shouldn't just be state owned routes because others are similar and need to meet the same standards.

. Dick suggested that maybe the focus should be on SRs, noting that a sense of frustration may be stemming from the fact that some of the issues do not apply or address city streets, etc. Thera countered that how we define problems and address issues should be the same on state and local roads. Mike added that destination related trips do have some differences in the urban contexts. The discussion continued, resulting in a general consensus not to limit it to arterials. Dave relayed that he was hearing that it shouldn't be just state facilities, and the group agreed. The focus is on arterials, but the material is applicable to much more. Some language to this effect may be include in the intro.

The group decided that the document will not be limited to state facilities nor to arterials, but will include a more expansive discussion that may be applicable in part or whole to any facility.

Discussion on Intended Audience:

Dave opened the discussion on the intended audience, and raised the issue of level of detail relating to the intended audience (is it okay for the needy users?) Agreement was reached that the audience includes everyone from interested citizens to the planners and engineers. It was noted that the language should not be simplified to the point where it is purely for any citizen, but should include detail appropriate for those responsible for the projects. Mike responded that it is written to that level. Rocky added that there might also be a need to educate the commission members. The document may be useful in educating engineers on issues that community members may be concerned about, and educating citizens about the factors that the designers need to consider. In this way it should facilitate communication and understanding between the stakeholders.

Case studies:

Dave challenged the IDG members to submit information.

Ned mentioned that at PSRC's meeting with John Milton and Anna, he had suggested that the case studies could be used to individually illustrate specific points about the CSD/CSS process, and that not all of them would need to cover all of the development process.

To locations that were suggested as examples were the urban corridor along Lake City Way, and the access control measures at SR 510/SR 507 Dakota .

Miscellaneous:
Rich identified urban signal spacing as a missing element. He noted that it is a significant currant issue in urban areas, where ½ mile spacing is standard, but ¼ mile spacing is desirable, but requires a deviation. He noted that this document should help to streamline the deviation submittal process, and that with CSD/CSS there may be an increase in the number of deviations. Dave responded that CSD/CSS should not result in a higher number of deviations.

Dave noted that street trees were one of the issues that began the efforts toward developing this document, and that it remains a key issue.

Schedule for future effort:
Dave raised the question of what is needed to get it ready for statewide review. Rocky responded that it needs one more round of IDG review before statewide review, and group agreed. Anna suggested that having groups address particular issues may help to meet the desires of individuals concerning language changes, and would people be willing to do this. The group agreed, with the reservation that the entire group still have an opportunity to review the changes.

Mike requested that a schedule for getting it ready for use in training be made available. Samih indicated he had one, but that it might not match the timeline required for the additional review requested by the IDG.

Dave doesn't expect the document to be available and used in the first training session, but the key element of the topic will be worked into the training. It was suggested that a draft copy of the document might be distributed in the training session, to familiarize those enrolled in the class with the document and its contents.

Mike indicated that putting the revised chapters on the web as a word file would allow people to provide suggested edits. Dave agreed that we will do that. Rocky suggested that everybody's comments be shared with everyone. Thera said it would be more manageable if sections are sent out periodically, instead of all at once. Others agreed, and Rocky added that it will still need an overall review too.

Wrap Up:
Samih will plan another meeting in 2-3 months with the focus on addressing the tone of the document, and group comments. Samih will send an email to the IDG members to see what dates fit their schedules. Once the review is completed, the document will be scheduled for statewide review, tentatively around the middle of September. Final review

by an expert technical writer will follow, prior to publication and distribution toward the end of October. The next IDG meeting will be scheduled and announced in the future.

Action Items:
- Samih and Anna will continue updating web site as comments are incorporated and the formatting is applied. The link to the server containing the most current version of the document is
http://test.wsdot.wa.gov/EESC/Design/FlexibilityDoc/
- The link to the Urban Policy Development web site, which will be updated less frequently, is
http://www.wsdot.wa.gov/eesc/design/Urban/ArterialDesignGuidanceDevelopmentadvisorygroup.htm
- IDG members need to complete comments on document and return to Samih Shilbayeh or Anna St. Martin.
- Comments may be submitted either electronically or paper based (please send only the pages containing comments). The paper based comments may be sent to Samih Shilbayeh at the address below:
  Samih Shilbayeh, WSDOT Design Office
  PO Box 47329 Olympia, WA 98504-7329
- Members may submit any suggestions for items to be discussed to Samih Shilbayeh or Anna St. Martin.
- Next meeting is expected to be around the middle of August. Samih will keep IDG members updated on the date and location.

Meeting adjourn at 12:00 pm

From: Rocky Piro [mailto:RPiro@psrc.org]
Sent: Wednesday, June 23, 2004 4:33 PM
To: IDG
Subject: Re: IDG meeting-Agenda

> Samih - we received the agenda for tomorrow's meeting and again would like to emphasize that Puget Sound Regional Council members of the group would like to see the meeting devoted to a frank discussion of the overall project . . .

> It is our hope the the meeting be well-attended with as many of the IDG partners as possible.

> In our estimation, the key item we should be focusing on at the meeting is whether we continue on the current path or take some action to redirect the project.

> To that end, this meeting should be viewed as providing an opportunity to reexamine the role and purpose of the project.

> We also need to devote time to some of the issues raise by other members of the IDG over the past several weekings, including (1) appropriate degree of detail, (2) readability of the document, (3) how to make it a truly collaborative tool, and (4) how to present the discussion of trade-offs.

> The primary outcome we should be striving for at the meeting is to agree as a group to a course of action to bring this effort to a positive and successful conclusion.

> These things need to happen before we talk about moving the document forward for statewide review and publication.

> Rocky

From: Rocky Piro [mailto:RPiro@psrc.org]
Sent: Friday, May 28, 2004 4:25 PM
To: ShlbyhS@wsdot.wa.gov
Cc: King Cushman; Ned Conroy; OlsonDa@wsdot.wa.gov
Subject: PSRC Comments - Understanding Flexibility in Transport Design

> Samih, Dave - again - thanks for the opportunity to share our concerns on the draft document. I'm sending you as an attachment an advance copy of our letter to you. You'll also get a copy in the mail, along with a marked-up copy of the latest version of the document with our more detailed notes.

> We're recommending a meeting of the entire IGD to discuss where things stand with the project so that we can work with you to chart a course to bring the project to successful completing. If you have questions or would like to discuss our comments in more detail, please don't hesitate to call or email.

> Rocky

May 28, 2004

Mr. Dave Olson
Design Policy, Standards, and Research Unit Manager

HQ Environmental and Engineering Program
Washington State Department of Transportation
310 Maple Park Avenue South-East
Olympia, Washington 98504-7329

Dear Dave,

Thank you once again for including us in the "understanding flexibility in design" project. We continue to believe this can be a worthwhile effort that would both serve the needs of WSDOT and be of value to localities and MPOs throughout the state. This type of work has been done very successfully in other parts of the country and we very much welcome the fact that WSDOT has taken a lead to address the application of context-sensitive design in Washington State.

We recognize that this project has been challenged from a lack of continuity – both in the project management and participation by the IDG – as well as from limited financial resources, for it to be the type of professional document at a quality level similar to WSDOT's *Building Projects that Build Communities* guidebook. Additionally, we continue to have very serious concerns that the latest draft of the document has significant problems and needs major reconsideration before it would be in a form that makes it truly useful for WSDOT and its local and regional partners. While some of these concerns address newer material that has only first appeared in the latest version of the draft document, a number are also ongoing concerns that address problem issues we have raised previously. Unfortunately, the shortcomings of the latest draft are of a nature that we feel may seriously limit the value of continuing this project on the present course.

We do believe there may still be opportunities for adequately addressing the many shortcomings and problems in the current draft that could incorporate a significant amount of the work WSDOT staff has performed to date. In that light, we feel we owe you more specifics that explain our critique and issues of concern.

Major Concerns and Problems

(1) The current language is overly defensive of established design standards and practices. This problem affects nearly all sections of the current draft and essentially reads as if it justifies inflexibility – regardless of the context in which a facility is located or will be located. There are plenty of well recognized and documented engineering principles that are appropriate in some contexts but not in others – this should be the whole point of the document.

(2) Each section should start by addressing "contexts." The design environment, i.e., the "context" itself, should be the primary focus throughout the document. With that as a basis, the material should then be organized in a way to describe and integrate design flexibility for transportation facilities according to unique land use contexts. A serious flaw of the current draft is that flexibility – or more typically, inflexibility – is discussed without any reference to context. (Note: The traffic calming section provides some of these examples.)

(3) Overemphasis on design for the motorist. Again, in various "contexts," facility design needs should be sensitive to other users. The information provided in Chapter VII on a series of urban contexts, with tables showing user volumes by mode, provides an excellent foundation for where facilities have a broader purpose than moving vehicles. In such instances, the discussion should be balanced and discuss various users and the kind of travel experience to be designed to address each user groups needs – as well as how they integrate. To that end, the material on bicyclists

and pedestrians should be presented early in the document, and not appearing as afterthoughts in the final sections.

(4) The legal section should be presented in a preface or as background. If a primary rationale for this project is to address legal considerations in design, then that discussion belongs up front, and not at the back-end of the document in Chapter VI. Also, as currently written, the legal sections seems to unnecessarily contrast "design flexibility" with "engineering principles." This is an artificial and problematic contradiction and is a major ideological flaw governing much of the drafted material in the current version.

(5) Chapter VII – "Considering the Various Contexts" – should be moved forward. This is **THE** critical chapter that sets the direction and tone for the rest of the material. The information in this chapter includes a very appropriate discussion of the distinct contexts for which projects and facilities are being designed and advances the organizing principle that should be used throughout the entire document. The subsequent material in the remaining sections should address each of the 7 contexts described in this section in specific detail – and not resort to a simplistic urban/rural dichotomy.

Recommendation

The Regional Council participants in this project would like to suggest that WSDOT project staff consider dedicating the next meeting of the IDG to having a frank discussion on the project. Given the state of the current draft, WSDOT and its IDG partners need to consider whether to continue on the current path or take some action to redirect the project. The meeting would need to be well attended and would give us all an opportunity to reexamine the role and purpose of the project – as well as agree to a course of action to bring this effort to a positive and successful conclusion. Again, similar efforts have been developed elsewhere in the country and have resulted in successful and useful manuals on context-sensitive design. These programs serve as models for what we are attempting to develop here in Washington.

If you have questions or would like to discuss any of these comments, please call Rocky Piro at (206) 464-6360 or e-mail *rpiro@psrc.org*, or King Cushman at (206) 464-6174 or e-mail *kcushman@psrc.org*.

Sincerely,

Rocky Piro
King Cushman

copy: Ned Conroy, Samih Shibayeh